



Joint Program Executive Office Joint Tactical Radio System

JTRS Overview Brief

JPEO JTRS



Agenda

- ▶ JTRS Program Background
- ▶ International Considerations
- ▶ UK Interest Issues



JTRS Background

- ▶ Program purpose: develop, produce, integrate and field a family of interoperable, digital, modular, software-defined radios that operate as nodes in a network to ensure secure wireless communications and networking services for mobile and fixed forces.
 - JTRS products envisioned to receive, transmit, route and relay voice, data and video
- ▶ JTRS program was initially established based on the need to:
 - Replace legacy radios
 - Address key shortfalls in battlefield communications capabilities
 - Bring separate Service-led radio programs together into a joint development effort
- ▶ Program rationale/requirements also included over time the need to:
 - Enable mobile wireless ad hoc networking
 - Enable information superiority through network centric warfare and communications interoperability across the service components and Allied forces
 - Ability to port and reuse software on a variety of hardware configurations – Reduce life cycle cost
- ▶ Individual developments for specific war fighting platforms were called Clusters



JTRS Background

A Transformational Enabler

- ▶ Seven pillars of the Global Information Grid (GIG)
 - Transformation Communications Architecture
 - Global Information Grid – Bandwidth Expansion
 - Teleports
 - JTRS – “the first tactical mile”
 - Mobile ad-hoc networking and Cross-banding
 - GIG Enterprise Services (GES)/Net-Centric Enterprise Services (NCES)
 - Information Assurance (IA) initiatives
 - Internet Protocol Version 6 implementation
- ▶ Without JTRS, the tactical warfighter will not be connected to the GIG

JTRS makes the goals of Transformation a warfighting reality for the Joint warrior at the tactical edge



JTRS Background

Action Taken First Ten Months

- ▶ Assessed Program Clusters for cost, schedule and performance
- ▶ Initiated draft replan of Clusters 1 / 5 / AMF / Joint Waveforms
 - Reduced high risk programs to moderate risk, incremental development approach to satisfy initial warfighter priorities
- ▶ Established and strengthened an overall JTRS management structure
 - Created a centralized JPEO organization with clear R&R, accountability and reporting
 - Established processes for overall systems engineering across programs



International Opportunities

| | |
|--------------------------|---|
| GMR (formerly Cluster 1) | Ground Mobile Radio - Increment 1 is funded; however export will be restricted until Increment 2 is implemented (which is not funded at this time.) Availability Unknown. |
| SOF (formerly Cluster 2) | Special Operations Forces - Export restricted until completion of a required upgrade is funded and executed. Availability Unknown. |
| AMF | Airborne, Maritime and Fixed - Increment 1 is funded and program on track for Security Certification. Info will be passed as it becomes available. |
| MIDS JTRS | Multifunctional Information Distribution System - Although MIDS Nations may be "licensed" to build MIDS J for their use, control of FMS sales rests with the US. Will begin working with PMW 780, NIPO and DSCA on export release following successful CDR. Availability projected as FY09. |
| HMS (formerly Cluster 5) | Handheld, Manpack and Small Form Fit - On track for Security Certification and export. Will coordinate with PM and DCSA following successful CDR. Availability projected as FY10. |

The re-plan results essentially did not affect the availability of JTRS for International use



International Considerations

- ▶ To perpetuate interoperability, we are working the following:
 - Release, control, and methodology for distribution of JTRS Hardware and Software
 - Distribution and loading of OE updates, WFs, and reloading of software after maintenance actions
 - O-, I-, and D-level maintenance procedures and Support Equipment availability
 - Release of necessary documentation

The JPEO International Team is partnering with NSA to lay foundation for 3rd party customers



US/UK C4I Interoperability

- ▶ US/UK MOU: Cooperative participation in Research and Development (Apr 2000)
 - Tactical Communications PA DOD-MOD-A-02-0014 (Sep 2002);
 - US/UK Plenary: CONOPS, Security, and Technical WGs
 - Bowman/Pritchell Project: Demonstrate interoperability between JTRS radio and UK Bowman PDR



UK Interest Issues

- ▶ Discussion of interest items:
 - Radio interests?
 - WF interests?
- ▶ Other areas where we may be of assistance



BACK-UP



JTRS Background

Program Overview (Prior to JPEO Stand-Up)

- ▶ **Cluster 1 – Ground and Vehicular**
 - Managed by the Army's Program Manager for WIN-T (part of PEO-C3T)
 - Support requirements for Army Aviation Rotary Wing, Air Force Tactical Control Party (TACP), and Army and USMC Ground Vehicular platforms
- ▶ **Cluster 2 – Handheld Multi-Band Intra-Team Radio**
 - Managed by Special Operations Command (SOAL-IIS-PMC4)
 - Support requirements for handheld radios for the Army, Navy, Marine Corps, and Air Force Special Operations Forces
- ▶ **Cluster AMF – Airborne and Maritime/Fixed Station**
 - Jointly managed by Air Force and Navy, with ESC/NI4 Hanscom taking the initial, rotational lead
 - Support requirements for airborne, maritime, and fixed station platforms for all Services



JTRS Background

Program Overview (Prior to JPEO Stand-Up)

- ▶ **Cluster 5 – Handheld, Manpack, and Small Form Fit**
 - Managed in conjunction with the Army's Program Manager for WIN-T (part of PEO-C3T)
 - Support requirements for JTRS handheld and manpack units and forms suitable for integration into platforms requiring a Small Form Fit radio
- ▶ **MIDS-JTRS**
 - Managed by the Navy's PEO C4I and Space
 - Migrate the current MIDS-LVT to JTRS compliance producing the next generation data link and communication terminal for joint and coalition tactical platforms
- ▶ **JTRS Joint Program Office (JPO) (now Joint Waveforms Program Office)**
 - Management oversight from USD (AT&L), ASD (NII), and the Army
 - Responsible for the waveform development, cryptographic equipment applications, and architectural integrity of JTRS